

REMARKS

Claims 1 and 2 are currently pending in the application and are presented for reconsideration and reexamination in view of the following remarks.

In the outstanding Office Action, claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,006,749 to White in view of Japanese Publication No. 11-285279 to Osamu; claim 2 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

By this Amendment, claims 1 and 2 are amended and the prior art rejection is traversed. Support for the amendments to claim 1 can be found for example in the description of Figures 4A, 4B, and 8A-8C. Claim 2 has been amended into independent form. Arguments in support thereof are provided.

It is respectfully submitted that the above amendments introduce no new matter within the meaning of 37 U.S.C. § 132.

Rejection under 35 U.S.C. § 103(a)

The Examiner rejected claim 1 as being unpatentable over White in view of Osamu.

Response

Reconsideration and withdrawal of the rejection is respectfully requested.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. Amgen,

Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

It is respectfully submitted that the combination of references fails to teach or suggest all the claim limitations.

According to a surface acoustic wave actuator in an embodiment of the present invention, since a permanent magnet provided in a mover is disposed so as to generate a magnetic field in a direction vertical to a piezoelectric board, a high degree of magnetic flux can be used for moving another object such as, but not limited to a rotatable spherical magnetic member 13 or a bar-like magnetic material 14 of a deflector body 12. Further, according to claim 1 of the present invention, a mover holder is movable together with the mover.

White discloses a method and apparatus for using ultrasonic energy for moving microminiature elements. The Examiner suggests that White includes an acoustic wave actuator arranged on a first surface of piezoelectric material 22, comb-shaped electrodes 28 and 30, and a movable element 26. The Examiner also states that White does not provide a permanent magnet on the mover cooperating with a move holder sandwiching the piezoelectric substrate. The Examiner cites Osamu in an attempt to cure the deficiencies of White.

Osamu teaches an acoustic wave actuator. The actuator includes a mover 10 having a permanent magnet 12, and a magnetic guide 20 which generates magnetic attraction force between a permanent magnet and it, and disposed at the back surface of a piezoelectric substrate 1.

According to Osamu, although a permanent magnet 12 is used, the channel-shaped magnetic yoke 13 which made of a soft magnetic material serves as a magnetic shield, and thus only quite a

low degree of magnetic flux leaks outward. Therefore, the actuator motor is applicable to various applications such as a positioning mechanism of various types, specifically, a mechanism for positioning a record/reproduction head of a magnetic or optical disc drive into a disc track (see paragraph [0026] of Osamu).

However, there is a disadvantage in the actuator motor in Osamu in that it is impossible to utilize the magnetic flux that is generated by and moves with the mover 10 for moving another object, as pointed out in the "Description of Related Art" section of the specification of the present invention.

Namely, the present invention differs from Osamu in that the present invention is directed to make good use of magnetic flux originating from the permanent magnet. In other words, the mover having a permanent magnet is disposed so as to generate a magnetic field vertically to the piezoelectric board as recited in claim 1.

In addition, Osamu discloses that a mover can only move along with a magnetic guide 20 attached on the reverse surface of the piezoelectric board 1.

On the contrary, a surface acoustic wave actuator according to the present invention includes a mover holder that is movable together with the mover. Hence, while a traveling path of the mover is restricted by the shape of the guide in Osamu, a mover can move for example, according to the present invention, in two dimensions as shown in Figures 3 to 12, because the movable mover holder does not restrict a traveling path of the mover.

Thus, as apparent from the foregoing, the cited references taken alone or in combination fail to teach or suggest all the limitations of claim 1 of the present invention.

It is therefore respectfully submitted that the rejection of independent claim 1 under 35 U.S.C. § 103(a) should be withdrawn.

Objection

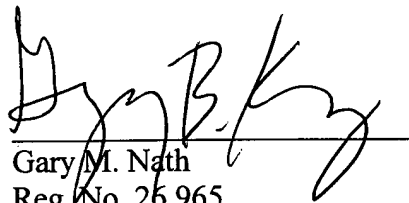
As claim 2 has been amended into independent form to be allowable as indicated in the outstanding Office Action, it is submitted that the objection should be withdrawn.

CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application. Favorable action with an early allowance of the claims is earnestly solicited.

Respectfully submitted,

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